

[WO 2004/024449]

[PCT/DE2003/002597]

**MARKED-UP VERSION OF SPECIFICATION**

**SCHÄFER: W1.1883 PCT-US**

**DEVICES FOR HOLDING[MAINTAINING] AT LEAST ONE DRESSING[LIFT DEVICE]  
ON A CYLINDER OF A ROTARY PRESS AND METHODS FOR MOUNTING  
SUCH[SAID] DEVICES**

**CROSS-REFERENCE TO RELATED APPLICATIONS**

**[001]** This U.S. patent application is the U.S. national phase, under 35 USC 371, of  
PCT/DE2003/002597, filed August 1, 2003; published as WO 2004/024449 A1 on  
March 25, 2004 and claiming priority to DE 102 36 867.3, filed August 12, 2002, the  
disclosures of which are expressly incorporated herein by reference.

**FIELD OF THE INVENTION**

**[002]** The present invention is directed[relates] to devices for holding at least one  
dressing on a cylinder of a rotary printing press, and to a method for mounting these  
devices[, in accordance with the preambles of claims 1, 2, 9, 10 or 38]. The devices are  
situated in a cylinder channel that has a wall and an opening oriented toward the  
surface area of the cylinder.

**BACKGROUND OF THE INVENTION**

**[003]** A device for fastening a dressing to be applied on a cylinder, which device is arranged in a channel of a cylinder of a rotary printing press, is known from DE 100 58 996 C1. The[, wherein the] device has a one-armed lever and a spring. The[, and the] lever has a pivot axis which is fixed with[in] place in respect to the cylinder, and[wherein] the spring is clamped between a wall of the channel and the lever. The channel has an opening, and the lever and the spring are arranged in a base body. The[, wherein the] base body is embodied as a tube corresponding to the cross section of the channel, and [wherein ]the lever is pivotably seated in the area of a wall of the base body located opposite the opening of the channel.

**[004]** In Fig. 2 of[,] the associated WO 02/43982 A2, which corresponds to DE 100 58 996, there is disclosed[ discloses] a device for fastening a dressing to be applied on the cylinder. The[, wherein the] lever is pivotably seated in a groove which is cut into the wall of channel. However, this[ wherein, however, the] device does not have a base body.

**[005]** A method and a device for clamping and for releasing flexible plates is known

from DE 199 24 787 A1. The[, wherein the] device is enclosed in a base body which is arranged in a channel of a[the] cylinder of a printing press. Clamping elements of the device are pivotably seated in supports which[, wherein the supports] are embodied as slits in the base body, and which are engaged by lower ends of the clamping elements. Moreover, the cross section of the channel is matched to the cross section of the base body which is shaped in the form of a groove.

### **SUMMARY OF THE INVENTION**

[006] The object of the present invention is directed to providing[based on creating] devices for holding at least one dressing on a cylinder of a rotary printing press, and to a method for mounting these devices.

[007] In accordance with the present invention, these objects are[this object is] attained by the provision of at least one dressing end holding device that is situated in a channel of a cylinder of a rotary printing plate. The channel includes an opening to the cylinder surface. One wall of that opening is shaped at an acute angle. The holding device has at least one torsion-resistant holding member with a first end that engages a

beveled or angled plate end that is inserted into the channel opening. A second end of the holding member is used to seat the holding device in the channel. A dimensionally-stable bow-shaped member is disposed in the channel and engages the acutely angled channel opening wall. A spring may be used to bias the bow-shaped member away from the holding member when the dressing end holding device is inserted into the cylinder channel] means of the characteristics of claim 1, 2, 9, 10 or 38].

[008] The advantages to be gained by [means of ]the present invention consist, in particular, in that the device for fastening a dressing on a cylinder of a rotary printing press, which device consists of a one-armed lever and of a spring, constitutes a structural component which can be easily mounted in a channel of a cylinder. This[, wherein this] structural component can be produced in a cost-effective manner. Thus, the attainment of the object of[ in accordance with] the present invention has the advantage that a base body, which encloses a large portion of the holding device[means], is not required, which accomplishes[already means] a savings in material, and therefore also lowered costs. Devices [of the species ]in accordance with the prior art show tube-shaped bodies which, for all practical purposes, are fitted with

their entire surface facing the wall of the channel. For wherein, for] an exact fit of these  
prior art devices between the channel and the base body, considerably higher  
demands are made on production technology than are required in connection with the  
use of a bow in accordance with the present invention which bow, because of its shape,  
merely needs to be inserted into the channel, and for which bow a single, individual  
support point is sufficient for accomplishing[performing] its function. Advantages in  
mounting the dressing holding device in accordance with the present invention result  
because the bow is attached to the holding device[means], instead of the holding  
device[means] being loosely placed into the channel. It is particularly advantageous  
that the bow fixes the holding device or devices[means] in place on its support point, so  
that the holding device is[means are] secured against being unintentionally released  
from its operating position, and the device, as a whole, is simultaneously arranged in  
the channel in a manner fixed against relative rotation. When employing a prior art  
tube-shaped base body, it is necessary to take additional steps for fixing it in place in a  
manner secure against relative rotation. Moreover, the spring of the subject device,  
which spreads open the bow and the holding device, [means] can be safely fixed in

place at least at one of its ends, which also constitutes an assembly advantage. The spring is linearly guided and is therefore protected against breaking out laterally. By the provision[means] of a stop that can be provided between the bow and the holding device,[means] the spring is prevented from being compressed into a block, in which case the spring would also attempt to yield laterally. Also, the stop advantageously prevents the holding device[means] from jamming an end of the dressing that is suspended<sub>1</sub> by its leading edge<sub>1</sub> in the production direction of the cylinder, which jamming would hamper the removal of a dressing wound on the cylinder.

### **BRIEF DESCRIPTION OF THE DRAWINGS**

**[009]** Preferred[Exemplary] embodiments of the present invention are represented in the drawings and will be described in greater detail in what follows.

**[010]** Shown are in:

Fig. 1, a cross-sectional representation of a first preferred embodiment of a device for holding a dressing to be applied on a cylinder in accordance with the present

invention, in

Fig. 2, a perspective representation of the bow portion of the device, in

Fig. 3, a planar developed view of the legs of the bow, in

Fig. 4, a depiction of a helical spring pushed onto a tongue and with its last winding pulled in, in

Fig. 5, a cross-sectional representation of a tongue with a sleeve and a spring, in

Fig. 6, a perspective representation of the sleeve of Fig. 5, in

Fig. 7, a [further] cross-sectional representation of a second preferred embodiment of a device for holding a dressing to be applied on a cylinder in accordance with the present invention, and in

Fig. 8, a perspective representation of elements of the device in accordance with Fig. 7.

### **DESCRIPTION OF THE PREFERRED EMBODIMENTS**

**[011]** In accordance with a first preferred[ an] embodiment of the present invention,  
as[variation] represented in Fig. 1, a dressing 03, for example a flexible plate-shaped  
printing forme 03, is fastened on a circumferential[the] surface area 02 of a cylinder 01

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by inserting dressing end legs 04, 06, which legs 04, 06 are beveled or angled off on the ends of the dressing 03, into a channel 07, which is arranged axially extending in the cylinder 01 and which channel 07 has an opening 11 that is oriented towards the surface area 02 of the cylinder 01. The dressing end legs 04, 06 are [ and has been] placed in the opening and bear [ there] substantially against spaced [the] walls 08, 09 of the opening 11, which walls 08, 09 are close to the surface area 02 of cylinder 01. The dressing end legs 04, 06 can also rest in part, against an interior [the] wall 12 of the channel 07 which interior wall 12 is located deeper in the interior of the cylinder 01. A [because the] border between the walls 08, 09 of the opening 11 and the wall 12 of the channel 07 extends fluidly or seamlessly. By pointing this out, it is only intended to suggest that the insertion depth of the legs 04, 06 is not exactly fixed, but instead encompasses an extended tolerance range. Without having any effect on the present invention, the channel 07 can have various cross-sectional geometries. However [however -] as represented in Fig. 1 [ -], a circular cross section is advantageous from the viewpoint of production technology.

**[012]** Without limiting the present invention only to the following simplified



representation, and for the sake of clarity the representation of the present invention takes place in the drawings and discussion[here] in a way as if only a single dressing 03, which is wrapped around the cylinder 01, were to be fastened on the cylinder 01. It is easily comprehensible for one skilled in the art that several dressings could be fastened in accordance with the present invention [here described] on the cylinder 01 and spaced in the[its] axial direction of the cylinder, as well as in the cylinder's[its] circumferential direction wherein, however, in the case of several circumferentially spaced dressings, several cylinder channels would also have to be provided in the circumferential direction.

**[013]** Viewed in the production direction P, as shown in Fig. 1, the dressing 03<sub>1</sub> to be fastened on the cylinder 01<sub>1</sub> has a leading end 13 and a trailing end 14, each with beveled-off legs 04, 06, respectively. Viewed in the production direction P of the cylinder 01, the opening 11 of the cylinder channel 07 also has an opening[a] front edge 16, from which edge 06[where] a wall 08 extends toward the channel 07. This[, wherein this] wall 08 is also called a first or front opening wall 08. Opening 11 also has an opening[, as well as a] rear edge 17, from which rear edge 17[where] a wall 09 also

extends toward the channel 07, wherein this wall 09 of the opening rear edge 17 is called the second or rear wall 09. The opening 11 is[extends] long and narrow and extends axially on the surface area 02 of the cylinder 01 and is therefore embodied to be slit-shaped. A[, wherein the] slit width  $S_1$  in comparison with a[the] depth " $t$ " of the channel 07, which channel depth " $t$ " can be, for example, 28 mm to 35 mm, and preferably 30 mm, is small. Slit width  $S$ [and] has such dimensions that a leg 04 of a leading end 13 of a dressing 03 and a leg 06 of the trailing end 14 of the dressing 03[thereof], or, [-]in the case of several dressings 03 fastened in the circumferential direction of the cylinder 01, [-]that trailing end 14 of an identical dressing 03 can be arranged one behind the other in the opening 11. Slit widths  $S$  of less than 5 mm, and preferably in the range of between 1 mm and 3 mm, are advantageous. Therefore, the ratio of the depth " $t$ " of the channel 07 and the slit width  $S$  lies approximately at 10:1.

**[014]** An acute angle  $\alpha$ , which lies between  $40^\circ$  and  $50^\circ$ , and which is preferably  $45^\circ$ , is formed between the first or front opening wall 08 extending from the opening front edge 16 in the direction toward the channel 07 and an imaginary[imagined] tangential line  $T$  resting on the opening 11 in the surface area 02 of the cylinder 01. Thus, the slit

width S of the opening 11 tapers or decreases in the radial cylinder direction toward the surface area 02 of the cylinder 01, and increases in the radial cylinder direction toward the channel 07. The beveled end leg 04 of the leading end 13 of the dressing 03 can be suspended at the front edge 16 of the opening 11, so that this leading dressing end leg 04 rests, preferably in a positively connected manner, against the front opening wall 08 and extending from the opening front edge 16 toward the channel 07. In the preferred embodiment[example] represented in Fig. 1, the second or rear opening wall 09 drops approximately vertically from the rear edge 17 of the opening 11 in the direction toward the channel 07. However, the second or rear opening wall 09 can also be slightly inclined, so that the opening 11 widens in the direction toward the channel 07. An angle  $\beta$ , which is[results as] the opening angle between the wall 09 extending from the rear edge 17 toward the channel 07 and the previously[already] mentioned tangential line T resting on the opening 11 in the surface area 02 of the cylinder 01, lies for example within the range of 85° to 95°, and is preferably 90°.

**[015]** As a rule, the channel 07 extends in a direction which is axis-parallel with the cylinder 01, and, for example, over the[its] entire length of cylinder 01. A recess 18, for

example an axially extending interior[a] groove 18, is located in the wall 12 of the channel 07, and is situated preferably approximately diametrically opposite the slit-shaped opening 11. A preferably[, in which a, for example] dimensionally-stable, torsion-resistant, preferably plate-shaped dressing end leg holding member[means] 19 is placed<sub>1</sub> [- ]preferably loosely<sub>1</sub> [- ]and pivotably [seated]. The holding member[means] 19 can be, for example, a metallic strip which is extending linearly in the channel 07, and which is preferably seated in<sub>1</sub> or on<sub>1</sub> the bottom of the channel 07. Therefore<sub>1</sub> the channel interior groove 18 is a seating point and support point of the holding member[means] 19, which is depicted in Fig. 1 as being configured[ designed] as a lever. In order to allow[be able to pivot] the holding member[means] 19 to pivot in the groove 18, a[the] width B of the groove 18 is selected[designed] to be greater than a[the] thickness D of the holding member[means] 19. The holding member[means] 19 is configured[designed] in such a way that it has a first, upper end 21, which can be placed against one of the two walls 08 or 09 of the channel opening 11, and a second, lower end 22 which is located opposite the channel opening 11. This[, wherein this] lower end 22 is supported in the groove 18. Alternatively to the provision of the groove

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18 in the wall 12 of the channel 07, a holder, which is not specifically depicted, can be provided in the interior of the channel 07 near the wall 12 of the channel 07[latter], in which holder the holding member[means] 19 is pivotable seated. Thus, because[by means] of its arrangement and shape, the holding member[means] 10 divides the cross section of the channel 07 into two section.

**[016]** A dimensionally-stable bow 23, which is provided with one or with several bow edges or ridges 32, 33 is provided in the channel 07. The bow 23 also has two ends, wherein a first, lower bow leg 26, for example, is oriented from a first bow edge or ridge 32 to a first[an] end of the bow 23, and a second, upper bow leg 27 extends from a second bow edge or ridge 33 to a second[another] end of the bow 23. Thus, the bow 23 is preferably embodied as a polygon and has a substantially semi-circular U- or L-shaped cross section. The[, wherein the] bow 23 is arranged in the channel 07, preferably preponderantly only on one side of the holding member[means] 19, namely on that side of holding member 19 which faces the front wall 08 of the opening 11 extending at the acute angle  $\alpha$  toward the channel 07. In this case, the bow 23 is advantageously oriented from the second lower end 22 of the holding member[means]

19 to its first upper end 21 wherein, in a preferred embodiment, one end of the bow 23 extends as far as the first or front wall 08 of the opening 11 which extends toward the channel 07 at the acute angle  $\alpha$ . The bow 23 is embodied, for example, as a component that may be punched out and bent from sheet metal and which can possibly have several bends. Alternatively, the bow 23 can be a molded element made of plastic. For seating the bow 23[it] in the channel 07, suitable support points have been formed on the bow 23, for example sharp or rounded edges or flat partial surfaces which are small in comparison with the entire surface of the bow 23. In case of a metallic bow 23, the edges or ridges 32, 33 constitute these bent edges 32, 33, for example.

**[017]** The first, lower leg 26 of the bow 23 is preferably attached to the lower end 22 of the holding member[means] 19. The attachment of the bow lower leg 26 at the lower end 22 of the holding member[means] 19 can be performed, for example, in that at least one opening, for example a bore or a punched-out section, in particular a T-shaped punched-out section, has been applied in the lower end 22 of the holding member[means] 19, in which at least one lower bow tongue 28 formed at the bow lower leg 26, as seen in [(]Figs. 2 and 3[)], and in particular a bow tongue 28 that is embodied

in a T-shape, can be suspended. A T-shaped embodiment of the punched-out section in the holding member[means] 19 and of the tongue 28 has the advantage that a bow tongue 28 suspended in the holding member[means] 19 can be fixed in place. At least one upper bow tongue 29[ - however], or preferably several identical upper bow tongues 29, each [-] oriented toward the first end 21 of the holding member[means] 19, are also formed on the upper leg 27 of the bow 23, on each of which upper bow tongues 39 a spring 31, preferably a helical spring 31, has been placed. The bow 23 is supported in the channel 07 on individual, i.e. spaced apart, support points, preferably at three such spaced support points, wherein one support point is located on the wall 12 of the channel 07 in the [(upper)] channel half facing the opening 11[07] or, in particular, on the wall 08 of the opening 11, which extends at an acute angle  $\alpha$  toward the channel 07.

**[018]** Fig. 1 shows a bow 23 which is supported at individual support points and which thus does not rest, over its entire surface, against the interior wall 12 of the channel 07. The bow 23 is supported by its second upper bow leg 27 on the wall 08 of the opening 11, which wall 08 extends at an acute angle  $\alpha$  toward the channel 07, and by an edge

or ridge 32 on the wall 12 of the channel 07. Further support points are provided by the front faces of a helical spring 31 which is arranged between the second upper leg 27 of the bow 23 and the first upper end 21 of the holding member[means] 19, as well as by an attachment of the first, lower leg 26 of the bow 23 at the second lower end 22 of the holding member[means] 19. In a preferred embodiment, the support point of the bow 23 at the second lower end 22 of the holding member[means] 19 is spaced apart from the seating and center point of the holding member[means] 19 by a distance "a," wherein the distance "a" is a few millimeters, preferably between 1 mm and 3 mm. The support point of the bow 23 with the first bow edge or ridge 32 at the wall 12 of the channel 07, as represented in Fig. 1, is optional, because three support points are sufficient for the secure seating of the bow 23 in the channel 07. Use of the support point on the wall 08 of the opening 11, which extends at an acute angle  $\alpha$  toward the channel 07, offers the advantage of fixing the holding member[means] 19 in its seating and center point by use[means] of the bow 23. Here, the seating of the bow 23 in the channel 07 is disengaged from a pivot movement of the holding member[means] 19.

**[019]** The spring 31, which has preferably been placed on the upper bow tongue 29, is



pre-stressed and spreads the bow 23 and the holding member[means] 19 apart.

Therefore, the spring 31 is supported, at one end, on the bow 23, and, on its other end, on the holding member[means] 19, preferably close to the upper end 21 of the holding member[means] 19, so that the holding member[means] 19, acting as a lever, forms as long a lever arm as possible between its seating point in the groove 18 up to the spring 31. The support of the spring 31 on the bow 23 can be aided by the provision of one or of several bow upper tongue strips 34, as seen in [(]Figs. 2 and 3[)], which are formed on the side of the bow upper tongue 29, or by an appropriately embodied stop-like collar 34. The upper, second bent edge or ridge 33 of the bow 23, or its upper leg 27, are advantageously supported near or on the wall 08 extending from the opening front edge 16 toward the channel 07. The force exerted by the spring 31, which is arranged between the bow 23 and the holding member[means] 19, on the bow 23, as well as on the holding member[means] 19, together with the support of the bow 23 on the wall 08 of the opening 11, which extends at an acute angle  $\alpha$  toward the channel 07, aids the fixation, in place, of the holding member[means] 19 in its seating and center point in the groove 18. The upper end 21 of the holding member[means] 19 is also simultaneously

pushed against the second opening wall 09 extending toward the rear edge 17 of the opening 11, from which engagement a clamping point results at the first, upper edge 21 of the holding member[means] 19, which clamping point is used for fastening of a beveled end leg 06 of a dressing 03 suspended there.

**[020]** The holding member[means] 19, the bow 23 and the spring 31 constitute a structural unit, which can be mounted<sub>1</sub> in a simple manner<sub>1</sub> in a channel 07 of the cylinder 01, preferably by being [laterally ]inserted laterally into the channel 07.

Therefore<sub>1</sub> a method for mounting into a cylinder 01 of a rotary printing press<sub>1</sub> [with ]a device for fastening at least one dressing 03 on the cylinder 01, and wherein the device is arranged in a channel 07 of the cylinder 01, is substantially distinguished by the process steps in which[wherein] a spring 31 is placed on an upper tongue 29[leg 27] of a bow 23, a lower leg 26 of the bow 23 is movably attached to a lower end 22 of a holding member[means] 19, and the holding member[means] 19, together with the bow 23 and the spring 31 are introduced into the channel 07. Moreover, in connection with this method<sub>1</sub> a support 37 of an actuating member[means] 36, which is used for actuating the holding member[means] 19, can be movably attached to the holding

member[means] 19, prior to the insertion of the holding member[means] 19 into the channel 07. Through[By] their combined effects, the holding member[means] 19, the bow 23 and the spring 31 constitute a device, which is effective in the channel 07, for fastening a dressing 03 to be placed on a cylinder 01 of a rotary printing press.

**[021]** The actuating member[means] 36 counteracts the contact pressure exerted by the spring 31, via the holding member[means] 19 upper end 21 on the second opening wall 09 extending from the rear edge 17 of the opening 11 in order to release, when required, the clamping caused by the holding member[means] 19 at the wall 09 during an actuation of the actuating member[means] 36. The actuating member[means] 36 [preferably ]is preferably a hose 36 that is extending in the longitudinal direction of the channel 07, and which can be charged with a pressure medium, such as, for example, compressed air, and which can be enclosed in an actuating member[a] support 37. The support 37 of this actuating member[means] 36 can be a sheet metal element which is bent in a U-shape, for example, which is supported on the wall 12 of the channel 07 and which, by its shape, reduces the amount of an increase in the volume of the hose 36 which is required for releasing the clamping force and in this way

contributes to a shorter reaction time of the actuating member[means] 36. The actuating member support 37 can also be suspended by [means of ]a tongue that is formed on the support 37 and which may be received in at least one opening of the holding member[means] 19, for example in a bore or in a punched-out section. This suspension of the actuating member support 37 can also take place in the same, correspondingly larger embodied, opening of the holding member[means] 19[, for example,] in which, for example, the lower leg 26 of the bow 23 is also suspended, so that the tongue of the actuating member support 37 and the tongue 28 on the lower leg 26 of the bow 23 come to rest on each other. As with the suspension of the bow 23, an actuating member[a] support 37, which is suspended from the holding member[means] 19, should also remain movable transversely in respect to the holding member[means] 19 in order to be able to support the actuating member support 37 on the wall 12 of the channel 07, at least during the actuation of the actuating member[means] 36.

Embodiments can also be advantageous, wherein the actuating member[means] 36 and its support 37 are embodied as a single component. A[, wherein a] hollow body, which is configured[designed] to be reversibly deformable, for example as a hose which

can be charged with a pressure medium, is reinforced, in addition to the side facing the holding member[means] 19, for example by being extrusion-coated with plastic, so that[wherein] at least one, preferably metallic, tongue for the suspension of the actuating member support 37, whose material is incorporated into the material of the actuating member[means] 36, in an opening of the holding means 19, has been introduced into this reinforced outer wall of the actuating member[means] 36. With a different configuration[realization] of the actuating member[means] 36, an actuating member[a] support 37 in the form herein described may be unnecessary. A further preferred embodiment [variation] provides for the embodiment of the actuating member support 37 in the form of a strip extending in an[the] axial direction over the entire length of the channel 07. The[, wherein the] support may be[is] fastened, for example by a screw connection, on the front or end faces of the cylinder. In this case, the strip is advantageously embodied in such a way that it can be threaded into the channel 07 through the slit-shaped opening 11, or can be moved out of channel 07[it] by a rotary movement around an axis parallel with the cylinder.

**[022]** Fig. 4 shows a preferred configuration[an advantageous design] of the spring 31

which is placed on the upper bow tongue 29 which is formed on the upper leg 27 of the bow 23. So that spring 31 will be[For being] fixed in place on the upper bow tongue 29, in this depicted configuration[example] the spring 31 has a pulled-in or reduced diameter last winding, with which the spring 31 is matched to the width "b" of the upper bow tongue 29. Spring 31[ and] can be placed on the tongue 29 by [means of ]a press fit. The width "b" of the tongue 29 may be, for example, between 3 mm to 10 mm, and is preferably 5 mm. The length "l" of the tongue 29 can lie between 6 mm and 15 mm, for example. The interior diameter "d" of a spring 31, with a pulled-in or reduced diameter last winding, widens over the length "l" of the tongue 29. An[, wherein the] interior diameter "d" at the spring end, with which the spring 31 is supported on the holding member[means] 19 is, for example, approximately 1 mm greater than the width "b" of the tongue 29. Therefore the rise or extension of the spring 31 is unimpeded. In a preferred embodiment, an end[the front] face 38 of the upper bow tongue 29 is used as a stop 38 for limiting a pivoting movement of the holding member[means] 19 between the bow 23 and the holding member[means] 19, wherein the pivoting movement of the holding member[means] 19 is oriented toward the bow 23. The stop

38 prevents the helical spring 31, arranged between the bow 23 and the holding member[means] 19 from being fully compressed into a block.

**[023]** A further embodiment of an[the] arrangement of the spring 31 on the upper bow tongue 29 is shown in Figs. 5 and 6. A sleeve 39, which is preferably made of plastic, has a bore 41 or a blind bore 41, by the use[means] of which the sleeve 39 can be pushed onto the upper bow tongue 29. Alternatively, such a sleeve 39 can be applied directly to the upper leg 27 of the bow 23, which has been shaped to match. The spring 31 itself is pushed onto the sleeve 39. A[The] front face of the sleeve 39, in turn, limits the lift or extension of the spring 31.

**[024]** A further preferred embodiment[variation] of the [proposed] device in accordance with the present invention is represented in Fig. 7. The bow 23, which, in particular, is a dimensionally-stable bow 23 made of a metallic material, is supported [for one] near one of its ends at the front opening wall 08 of the opening 11, which extends at an acute angle  $\alpha$  toward the channel 07, and also with its other end at the second, lower end 22 of the holding member[means] 19. A spring 31 is arranged between the bow 23 and the holding member[means] 19 substantially parallel with a tangential line T resting

on the opening 11. Spring 31[,] spreads the bow 23 and the holding member[means] 19 apart, so that the spring 31 exerts a force on the respective support points of the bow 23 and contributes to a fixing of the holding member[means] 19 in place in its seating and centering point in the groove 18. The spring 31 is preferably configured[designed] as a helical spring 31. For the sake of clarity, the spring 31 is represented in Fig. 7 with an interrupted winding. The spring 31 has been placed on a peg 43, wherein the peg 43[29] is preferably formed on a peg plate 42, and the peg plate 42 is attached to the side of the holding member[means] 19 facing away from the bow 23.

**[025]** Fig. 8 shows further details of this preferred embodiment[ in this connection].

For example, the holding member[means] 19 has at least one opening 44, but advantageously has a plurality of openings 44, into which a peg 43 attached to the peg plate 42, for example formed on it, can be clipped. The peg plate 42 is fastened to the holding member[means] 19 by the pegs 43 that are clipped into the openings 44. The spring 31 has been advantageously pushed onto at least one of the pegs 43. On its one, lower end, by [means of ]which it is attached to the holding member[element] 19, the bow 23 advantageously has a lower bow tongue 28 embodied in a T-shape, which



is suspended in an opening, preferably also embodied in a T-shape, of the holding member[means] 19. This configuration[design] of the lower bow tongue 28 and the opening in the holding member[means] 19 permits a rotatorily movable seating of the bow 23 on the holding member[means] 19, but which[they] also secures the bow 23 against an unintentional removal from the holding member[means] 19. By the use[means] of the rotatorily movable seating<sub>1</sub> with generous play<sub>1</sub> of the bow 23 in the holding member[means] 19, the bow 23 remains unaffected<sub>1</sub> to a large extent<sub>1</sub> by a pivot movement of the holding member[means] 19. Advantageously the peg plate 42 attached to the holding member[means] 19 is configured[designed] in such a way that, following its attachment to the holding member[means] 19, it covers the opening, embodied in a T-shape, in the holding member[means] 19 to such an extent, that the lower bow tongue 28[23], which is embodied in a T-shape, on the bow 23 can no longer be removed from the holding member[means] 19. In this way<sub>1</sub> the peg plate 42 additionally secures the bow 23 against unintentional removal from the holding member[means] 19. The peg plate 42 can be made of a plastic material, for example. In the course of its actuation, the actuating member[means] 36, which is arranged in the

channel 07, exerts a force on an actuating member[a] support 37, which is fixed in place in the channel 07 and which is preferably embodied in the shape of a shell, as well as on the peg plate 42 that is attached to the holding member[means] 19. The actuating member support 37 is embodied, for example, as a strip that is fastened to the front or end faces of the cylinder 01.

**[026]** From the support point of the bow 23 on the wall 08 of the opening 11, which extends at an acute angle  $\alpha$  toward the channel 07, an upper[a] leg 27 of the bow 23 is oriented toward the holding member 19[means]. In this preferred embodiment,[example] the front or free end face 38 of the leg 27 constitutes a stop 38, against which the holding member[means] 19 strikes during a pivot movement that is triggered by actuation of the actuating member[means] 36 and which is directed toward the bow 23.

**[027]** While preferred embodiments of devices for holding at least one dressing on a cylinder of a rotary press and methods for mounting such devices, in accordance with the present invention, have been set forth fully and completely hereinabove, it will be apparent to one of skill in the art that various changes in, for example the overall size of the cylinder, drive assemblies for the cylinder, and the like could be made without

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departing from the true spirit and scope of the present invention which is accordingly to  
be limited only by the following claims.

WHAT IS CLAIMED IS:

[List of Reference Symbols]

01	Cylinder
02	Surface area
03	Dressing, printing forme
04	Leg
05	-
06	Leg
07	Channel
08	Wall, first
09	Second wall
10	-
11	Opening
12	Wall
13	End, leading
14	End, trailing
15	-
16	Edge, front
17	Edge, rear
18	Recess, groove
19	Holding means, lever
20	-
21	End, first, upper
22	End, second, lower
23	Bow
24	-
25	-
26	Leg, first, lower
27	Leg, second, upper
28	Tongue
29	Tongue
30	-]

- [31 Spring, helical spring
- 32 Edge, bent edge
- 33 Edge, bent edge
- 34 Strip, collar
- 35 -
- 36 Actuating means, hose
- 37 Support
- 38 Stop, front face
- 39 Sleeve
- 40 -
- 41 Bore, blind bore
- 42 Plate
- 43 Peg
- 44 Opening

- B Width
- D Thickness
- P Production direction
- S Slit width
- T Tangent line

- a Distance
- b Width
- d Interior diameter
- l Length
- t Depth

- $\alpha$  Angle
- $\beta$  Angle]